

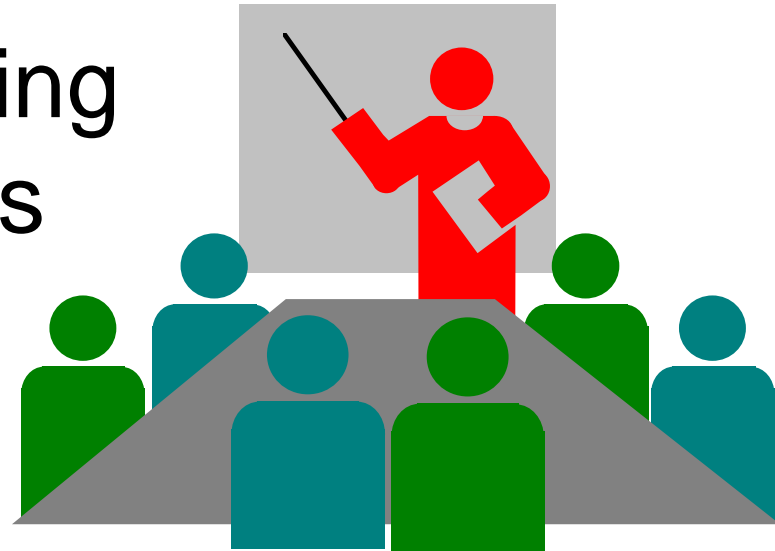
A vertical graphic on the left side of the slide showing a splash of water with bubbles and droplets, rendered in shades of blue and white.

Public Stakeholder's Perspective

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Presentation Outline

- Who AWWA Is
- Background on Process for Drinking Water Regulations
- Why We are Concerned
- Some Case Studies



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Who AWWA Is

- Scientific and technical association for drinking water community
- Members – utilities, consultants, manufacturers, researchers, etc.
 - 80% of the water in the U.S.
- How do we speak for the public?
 - 80% of utilities are municipal

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Drinking Water Regulations

- Process starts with Contaminant Candidate List (CCL)
 - List developed every 5 years
 - CCL3 in 2009 – 104 chemicals and 12 microbial contaminants
- Three SDWA criteria
 - “..may have an adverse health effect...”
 - “...known or likely to occur...”
 - “...meaningful opportunity for risk reduction...”

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Drinking Water Regs (cont.)

- Regulatory determinations next
 - At least five every five years
 - Regulate, don't regulate, guidance, more research, etc.
 - First two determinations – did not regulate 20 contaminants
 - Did not meet SDWA criteria – “...meaningful opportunity for risk reduction...”
 - Increasing political pressure to regulate “something”

Why We Are Concerned



MISTAKES

IT COULD BE THAT THE PURPOSE OF YOUR LIFE IS
ONLY TO SERVE AS A WARNING TO OTHERS.

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Case Studies

- Atrazine
- MTBE
- Pharmaceuticals and Personal Care Products (PPCPs)
- Nanomaterials

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Atrazine

- Most commonly used herbicide in U.S.
- Drinking water standard set in 1991
 - Violations – 81 in 1995, 3 in 2007
 - Many utilities in Midwest installed carbon & their customers pay the costs
- New health effects data with reproductive & developmental endpoint
- Recent media stories
 - Public perception of weed killer in their drinking water

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MTBE

- Added to gasoline as an oxygenate to meet Clean Air Act mandates
- Several significant cases of groundwater contamination
- Listed on CCL1, CCL2, & CCL3
- Not currently regulated at federal level
 - Guidance for taste and odor concerns
- Public perception of gasoline in their drinking water

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Pharmaceuticals and Personal Care Products (PPCPs)

- “Fear precedes knowledge”
- 2008 Associated Press stories
 - Public perception of drugs in their water
 - Public doesn’t want them in their water as an involuntary dose (even low dose)
 - Health effects research shows no toxicity at low doses found in water sources
- EPA added one antibiotic and nine hormones to final CCL3
 - EPA response to pressure?



Nanomaterials

- “Fear precedes knowledge”
- Public perception of the “unknown” in their drinking water
 - Michael Crichton book – *Swarm*
- For drinking water utilities
 - Good nano – treatment and sensors
 - Bad nano – the “unknown” or the known if one is found to have an adverse health effect later

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Conclusions

- “Fear precedes knowledge”
 - Public perception is important
- Once the water is ruined, it is difficult to get it back
- Congress, the courts, and the media should not set drinking water standards – EPA should use its science-driven regulatory process
- Need an integrated research agenda to address nanomaterials and other contaminants of concern